

Learning Agenda

Business Research Area

Multi-Year Evidence/Evaluation Theme: Leverage the Census Bureau’s Data Linkage Infrastructure to assist Federal Agencies in evidence building

Bureau: Census

Strategic Objective: 4.2. Provide Accurate Data to Support Economic Activity

Strategy: Engage Federal agencies to learn their data/evaluation needs, draft project proposals, acquire and link data for research, assist with disclosure avoidance, and provide overall project management support

Rationale for Theme’s Priority and How the Evidence/Evaluation Findings will be Used :

Results will be used by Federal agencies to analyze the short and long run impacts of programs with the goal of improving program design and implementation as well as the allocation of resources across programs

FY 22 Evidence/Evaluation Projects and Research Questions:

Approved and Ongoing Projects

Research Leveraging HUD Housing Mobility Data (7)

Moving to Opportunity (MTO):

- Effects of the Moving to Opportunity housing mobility experiment on health (University of Minnesota)
 - External Researchers (11): Nicole Marie Schmidt*, Theresa Louise Osypuk*, Bria Gresham, David Rehkopf, Kara Rudolph, Medellena Maria Lee Glymour, Naomi Harada Thyden, Pamela Kumari Joshi, Spruha Joshi, Toben Fredrick Nelson, Sam Gailey
 - RQs: Whether the effects of moving to a low-poverty neighborhood on health in the MTO study are mediated by neighborhood characteristics, school characteristics, family social context, or substance use; MTO intervention effect on health for families with pre-existing health or developmental vulnerability, lower socioeconomic status, living in certain neighborhoods or in certain cities; importance of alternative timing or sequencing patterns of exposures to neighborhood poverty on health and mental health; using cutting-edge causal methods that model time-varying exposures, and estimate residential trajectories measuring the opportunity of neighborhoods across time, as well as what predicts trajectories of neighborhood opportunity, and how those opportunity trajectories affect adolescent and adult health and wellbeing.
 - Datasets: HUD Moving to Opportunity, LEHD.
 - Publications:

Díaz, I., Hejazi, N., Rudolph, K., van Der Laan, M. (2021). Nonparametric efficient causal mediation with intermediate confounders, *Biometrika*, Volume 108, Issue 3, Pages 627–641. <https://doi.org/10.1093/biomet/asaa085>

Rudolph, K., Díaz, I. (2021). Efficiently transporting causal direct and indirect effects to new populations under intermediate confounding and with multiple mediators, *Biostatistics*, kxaa057. <https://doi.org/10.1093/biostatistics/kxaa057>

Rudolph, K., Diaz, I. (2021). [When the ends don't justify the means: Learning a treatment strategy to prevent harmful indirect effects](#) (Draft) arXiv preprint arXiv:2101.08590

Rudolph, K., Gimbrone, C., Díaz, I. (2021). Helped into Harm, *Epidemiology*, Volume 32 - Issue 3 - p 336-346. <https://doi.org/10.1097/EDE.0000000000001334>

Rudolph, K., Levy, J., Schmidt, N., Stuart, E., Ahern, J. (2020). Using Transportability to Understand Differences in Mediation Mechanisms Across Trial Sites of a Housing Voucher Experiment, *Epidemiology*, Volume 31 - Issue 4 - p 523-533. <https://doi.org/10.1097/EDE.0000000000001191>

Rudolph, K., Levy, J., van der laan, M. (2020). Transporting stochastic direct and indirect effects to new populations, *Biometrics*. <https://doi.org/10.1111/biom.13274>

Rudolph, K., Sofrygin, O., van der Laan, M. (2021). Complier Stochastic Direct Effects: Identification and Robust Estimation, *Journal of the American Statistical Association*, 116:535, 1254-1264. <https://doi.org/10.1080/01621459.2019.1704292>

- Housing and Urban Development (HUD) Substitution Bias and Generalizability in Housing Mobility Programs (University of Notre Dame)
 - External Researchers (2): Robert Collinson, Eric Chyn
 - RQ: The role of substitution bias in the control group of MTO; extrapolating the estimates from MTO to families residing in private rental housing; the relationship between neighborhood exposure and earnings over the life cycle.
 - Datasets: HUD Moving to Opportunity, HUD Gautreau Housing Project, Decennial Census, HUD Public and Indian Housing Information Center, HUD Tenant Rental Assistance Certification System, Census Numident, housing Composition Key File.
- How Neighborhoods Affect Parental Mental Health, Families, and Child Achievement: Evidence from Moving to Opportunity (Loyola University) (*revise & resubmit only*)
 - External Researchers (1): Kaiyuan Joel Han
 - RQs: Impact of neighborhood amenities on the wellbeing of MTO participants; heterogeneous impact of MTO on family relationships according to “wellbeing conduciveness” of neighborhood; heterogeneous impact of MTO on child achievement according to “wellbeing conduciveness” of neighborhood.
 - Datasets: HUD MTO, MTO Loyola University Data.

Family Options Study (FOS):

- Effects of housing services interventions on neighborhood context and mediators of change in child behaviors in the Family Options Study (Harvard University)
 - External Researchers (3): Natalie Slopen*, Andrew Fenelon, Michael H Boudreaux

- RQs: Effects of intervention condition on children’s neighborhood context three years after randomization; intermediary pathways that explain the effect of permanent housing subsidies on improved child behaviors, such as reduced parental psychological distress, lower food insecurity, fewer school changes, reduced domestic violence, and greater housing stability.
- Datasets: HUD Family Options Study, American Community Survey.
- Family Options Study: New Evidence from Linked Administrative Data (NYU & University of Michigan)
 - External Researchers (3): Sarah Miller*, Laura Wherry*, Jaclyn N Schess
 - RQ: Update previous analyses to measure the effects of the FOS interventions on housing assistance receipt and housing stability over a longer follow up period; Extend analyses of the effects of the FOS interventions on adult economic self-sufficiency including employment, public program participation, and financial health; provide new evidence on the impacts of the FOS interventions on health; generate early evidence on the impacts of the FOS interventions on children’s long-term well-being.
 - Datasets: HUD Family Options Study, Decennial Census, American Community Survey, HUD Tenant Rental Assistance Certification System (TRACS), USPC National Change of Address, LEHD, HUD PIC & TRACS, California State Tax.
- Data-Driven Homeless Services: Learning from the Family Options Study (Washington University)
 - External Researchers (2): Sanmay Das, Amanda Kube
 - RQ: using empirically derived patterns to identify families most likely to avoid family separation after receiving homeless services; household and neighborhood characteristics most predictive of greater reductions in family separation associated with homeless interventions; change in rate of family separation if homeless services were allocated based on forecasts from models.
 - Datasets: HUD FOS.
- Effective Homeless Interventions and the Importance of Local Housing Market Conditions (Southwestern University)
 - External Researchers (1): Patrick Early
 - RQ: whether local housing market conditions can affect the impact of the three homelessness interventions that comprise the random selection experiment of the Family Options Study.
 - Datasets: HUD FOS.

Criminal Justice (2)

- Program Utilization by Formerly Criminalized Persons: Linking Recidivism Data to Data Held by US Census Bureau (Yale University)
 - External Researchers (2): Benjamin Howell, Emily Wang
 - RQ: Association of government programs, recidivism, and non-recidivism for formerly criminalized youth in Connecticut; further associations with gender, race, ethnicity, and risk assessment scores; Differing of uptake rates for government programs across youth and young adults who were on probation and those on parole; migration patterns of formerly criminalized youth in Connecticut; housing assistance uptake and eligibility differences between youth and adults who recidivate and those who do not; housing

assistance uptake relationship with stability of housing arrangements; post-adjudication employment and earnings pattern differences between youth and young adults who recidivate and those who do not.

- Datasets: User Provided Data-Connecticut Institute for Regional and Municipal Policy dataset included Court Support Services, Department of Children and Families, Department of Corrections, Census and Administrative Data-CMS Medicare and Medicaid, HHS Child Care and Development Fund, HUD Public and Indian Housing Center (PIC) and Tenant Rental Assistance Certification System (TRACS), LEHD, USPS National Change of Address.
- Investigating the Link Between Employment Status and Crime (BOP)
 - External Researchers (1): Jason Gwinn
 - RQ: whether pre-incarceration employment predicts inmate participation in voluntary job training and education programs offered in the BOP; effect of post-release employment and earnings on post-release arrest history.
 - Datasets: DOJ BOP Federal Prison Industries & Crime and Employment, Census Numident, LEHD.

Research Leveraging Disaster-related Data (2)

- Mapping the Wildland-Urban Interface: Characterizing WUI Extent and Demographics to Understand Wildfire Mitigation and Outcomes (USFS, University of Wisconsin)
 - External Researchers (3): Bruce Sacerdote*, Andrew Barr, Scott Imberman
 - RQ: In-migration, economic growth, and previous hazard exposure on hazard exposure dynamics in the WUI, including originating locations and associated factors (social, economic) of in-migrants.
 - Datasets: American Community Survey, American Housing Survey, Black Knight Real Estate Data, CoreLogic Data, CMS Medicare and Medicaid, Current Population Survey (ASEC), Decennial Census, Homeless Management Information System, Household Pulse Survey, HUD Family Options Study, HUD Moving to Opportunity, HUD Public and Indian Housing Center (PIC) and Tenant Rental Assistance Certification System (TRACS), National Crime Victimization Survey, Survey of Income and Program Participation, USPS National Change of Address.
- Long Run Impacts of Hurricanes and Natural Disasters on Outcomes for Families (Dartmouth University)
 - External Researchers (2): Miranda Mockrin*, David Helmers
 - RQ: Outcomes for families in areas highly affected by disasters and hazards versus areas less affected by natural disasters; disruptive effects of the disaster itself; disruptive effects from permanent moves; potential positive effects from relocating children to a new and more advantageous geographic area.
 - Datasets: American Community Survey, Current Population Survey (ASEC), Decennial Census, LEHD.
- Health at Birth and Later Life Outcomes: Evaluating the Returns to Policy-Driven Early Health Investments (NYU, University of Michigan)

- External Researchers (7): Laura Wherry*, Sarah Miller*, Amelia Hawkins, Christopher Hollrah, Kaitlyn Moulton, Maya Rossin-Slater, Petra Persson
- RQ: Effect of health at birth on adult health and productivity and the outcomes of their offspring; evaluation of Comprehensive Perinatal Services Program (CPSP), WIC, and specific public health investments that target the prenatal and neonatal periods.
- Datasets: User Provided Data-California birth records for all infants born in California between 1960 and 2014 (approximately 25 million births), Census and Administrative Data-Decennial Census 2000, American Community Survey, Numident, CMS Medicare and Medicaid, California Tax Data, Census Household Identification Key, LEHD, IRS 1040, IRS 1099.
- Evaluation of Federal Programs to Assist Fossil Fuel Communities (Resources for the Future, Appalachian Citizens' Law Center, MIT)
 - External Researchers (3): (three researchers will apply for EXTERNAL RESEARCHERS)
 - RQ: Career and income outcomes associated with completion of training programs; the social, demographic economic, and programmatic variable associated with ability to complete a training program, achieve employment that is relevant to the training, and compensation; impacts of regional labor markets on career and income outcomes.
 - Datasets: American Community Survey, Current Population Survey (ASEC), Survey of Income and Program Participation

Methodology for Evidence/Evaluations: Methodology will differ by individual project

Data Source: Research leverages the full data linkage infrastructure of the Census Bureau, including census, survey, and administrative data holdings, as well as new administrative data acquisitions from partner agencies

Resources for these Evidence/Evaluations: Work is currently being done in the Center for Economic Studies, primarily by staff in the Business Research Area and is assisted by the Data Acquisition and Curation Staff and the Business Development Staff. The Evidence Building Staff currently consists of six FTEs with approximately three FTEs of support from the other areas.

Budget Implications: In the pilot/demonstration phase, the projects were a mix of joint statistical projects and reimbursable projects. In FY22, all projects will be joint statistical projects.

Challenges: The biggest challenges are around data acquisition and access. The laws that establish many Federal programs generally do not anticipate the linking of program data for research and evidence building and it can be difficult to overcome the legal and policy hurdles necessary to acquire and link data for a project. It is not unusual for it to take years to acquire, process, and provision all the data necessary for a particular project.

Lead Unit and Bureau Contact:

Business Research Area, CES

Shawn Klimek, Staff Chief, shawn.d.klimek@census.gov

Katlyn King, katlyn.n.king@census.gov

Gloria Aldana, gloria.g.aldana@census.gov